## SEQUENCE LISTING

<110> Max-PLanck-Gesellschaft zur Forderung der Wissensc <120> Recombinant soluble Fc receptors <130> 19290PWO recombinant soluble FcR <150> PCT/EP/99/09440 <151> 1999-12-03 <150> EP98122969.3 <151> 1998-12-03 <160> 18 <170> PatentIn Ver. 2.1 <210> 1 <211> 269 <212> PRT <213> Homo sapiens <400> 1 Met Ala Val Ile Ser Leu Gln Pro Pro Trp Val Ser Val Phe Gln Glu Glu Thr Val Thr Leu His Cys Glu Val Leu His Leu Pro Gly Ser Ser 25 Ser Thr Gln Trp Phe Leu Asn Gly Thr Ala Thr Gln Thr Ser Thr Pro 40 Ser Tyr Arg Ile Thr Ser Ala Ser Val Asn Asp Ser Gly Glu Tyr Arg 55 Cys Gln Arg Gly Leu Ser Gly Arg Ser Asp Pro Ile Gln Leu Glu Ile His Arg Gly Trp Leu Leu Gln Val Ser Ser Arg Val Phe Thr Glu 85 Gly Glu Pro Leu Ala Leu Arg Cys His Ala Trp Lys Asp Lys Leu Val 100 105 Tyr Asn Val Leu Tyr Tyr Arg Asn Gly Lys Ala Phe Lys Phe Phe His 120 Trp Asn Ser Asn Leu Thr Ile Leu Lys Thr Asn Ile Ser His Asn Gly 130 Thr Tyr His Cys Ser Gly Met Gly Lys His Arg Tyr Thr Ser Ala Gly 150 Ile Ser Val Thr Val Lys Glu Leu Phe Pro Ala Pro Val Leu Asn Ala

170

165

Ser Val Thr Ser Pro Leu Leu Glu Gly Asn Leu Val Thr Leu Ser Cys 180 185 190

Glu Thr Lys Leu Leu Gln Arg Pro Gly Leu Gln Leu Tyr Phe Ser 195 200 205

Phe Tyr Met Gly Ser Lys Thr Leu Arg Gly Arg Asn Thr Ser Ser Glu 210 215 220

Tyr Gln Ile Leu Thr Ala Arg Arg Glu Asp Ser Gly Leu Tyr Trp Cys 225 230 235 240

Glu Ala Ala Thr Glu Asp Gly Asn Val Leu Lys Arg Ser Pro Glu Leu 245 250 255

Glu Leu Gln Val Leu Gly Leu Gln Leu Pro Thr Pro Val 260 265

<210> 2

<211> 174

<212> PRT

<213> Homo sapiens

<400> 2

Met Ala Ala Pro Pro Lys Ala Val Leu Lys Leu Glu Pro Pro Trp Ile 1 5 10 15

Asn Val Leu Gln Glu Asp Ser Val Thr Leu Thr Cys Gln Gly Ala Arg 20 25 30

Ser Pro Glu Ser Asp Ser Ile Gln Trp Phe His Asn Gly Asn Leu Ile 35 40 45

Pro Thr His Thr Gln Pro Ser Tyr Arg Phe Lys Ala Asn Asn Asn Asp 50 55 60

Ser Gly Glu Tyr Thr Cys Gln Thr Gly Gln Thr Ser Leu Ser Asp Pro 65 70 75 80

Val His Leu Thr Val Leu Ser Glu Trp Leu Val Leu Gln Thr Pro His
85 90 95

Leu Glu Phe Gln Glu Gly Glu Thr Ile Met Leu Arg Cys His Ser Trp
100 105 110

Lys Asp Lys Pro Leu Val Lys Val Thr Phe Phe Gln Asn Gly Lys Ser 115 120 125

Gln Lys Phe Ser Arg Leu Asp Pro Thr Phe Ser Ile Pro Gln Ala Asn 130 135 140

His Ser His Ser Gly Asp Tyr His Cys Thr Gly Asn Ile Gly Tyr Thr 145 150 155 160

Leu Phe Ser Ser Lys Pro Val Thr Ile Thr Val Gln Val Pro

165 170

```
<210> 3
<211> 185
<212> PRT
<213> Homo sapiens
<400> 3
Met Gly Thr Pro Ala Ala Pro Pro Lys Ala Val Leu Lys Leu Glu Pro
Gln Trp Ile Asn Val Leu Gln Glu Asp Ser Val Thr Leu Thr Cys Arg
             20
Gly Thr His Ser Pro Glu Ser Asp Ser Ile Gln Trp Phe His Asn Gly
Asn Leu Ile Pro Thr His Thr Gln Pro Ser Tyr Arg Phe Lys Ala Asn
Asn Asn Asp Ser Gly Glu Tyr Thr Cys Gln Thr Gly Gln Thr Ser Leu
Ser Asp Pro Val His Leu Thr Val Leu Ser Glu Trp Leu Val Leu Gln
Thr Pro His Leu Glu Phe Gln Glu Gly Glu Thr Ile Val Leu Arg Cys
                                105
His Ser Trp Lys Asp Lys Pro Leu Val Lys Val Thr Phe Phe Gln Asn
                            120
Gly Lys Ser Lys Lys Phe Ser Arg Ser Asp Pro Asn Phe Ser Ile Pro
                        135
Gln Ala Asn His Ser His Ser Gly Asp Tyr His Cys Thr Gly Asn Ile
                    150
Gly Tyr Thr Leu Tyr Ser Ser Lys Pro Val Thr Ile Thr Val Gln Ala
                165
                                    170
Pro Ser Ser Pro Met Gly Ile Ile
```

<210> 4 <211> 176 <212> PRT <213> Homo sapiens

180

<400> 4

Met Arg Thr Glu Asp Leu Pro Lys Ala Val Val Phe Leu Glu Pro Gln
1 5 10 15

Trp Tyr Ser Val Leu Glu Lys Asp Ser Val Thr Leu Lys Cys Gln Gly
20 25 30

Ala Tyr Ser Pro Glu Asp Asn Ser Thr Gln Trp Phe His Asn Glu Ser 35 40 45

Asn Asp Ser Gly Glu Tyr Arg Cys Gln Thr Asn Leu Ser Thr Leu Ser 65 70 75 80

Asp Pro Val Gln Leu Glu Val His Ile Gly Trp Leu Leu Gln Ala 85 90 95

Pro Arg Trp Val Phe Lys Glu Glu Asp Pro Ile His Leu Arg Cys His 100 105 110

Ser Trp Lys Asn Thr Ala Leu His Lys Val Thr Tyr Leu Gln Asn Gly
115 120 125

Lys Asp Arg Lys Tyr Phe His His Asn Ser Asp Phe His Ile Pro Lys 130 135 140

Ala Thr Leu Lys Asp Ser Gly Ser Tyr Phe Cys Arg Gly Leu Val Gly 145 150 155 160

Ser Lys Asn Val Ser Ser Glu Thr Val Asn Ile Thr Ile Thr Gln Gly 165 . 170 175

<210> 5

<211> 183

<212> PRT

<213> Homo sapiens

<400> 5

Met Ala Val Pro Gln Lys Pro Lys Val Ser Leu Asn Pro Pro Trp Asn 1 5 10 15

Arg Ile Phe Lys Gly Glu Asn Val Thr Leu Thr Cys Asn Gly Asn Asn 20 25 30

Phe Phe Glu Val Ser Ser Thr Lys Trp Phe His Asn Gly Ser Leu Ser 35 40 45

Glu Glu Thr Asn Ser Ser Leu Asn Ile Val Asn Ala Lys Phe Glu Asp 50 55 60

Ser Gly Glu Tyr Lys Cys Gln His Gln Gln Val Asn Glu Ser Glu Pro 65 70 75 80

Val Tyr Leu Glu Val Phe Ser Asp Trp Leu Leu Leu Gln Ala Ser Ala

Glu Val Val Met Glu Gly Gln Pro Leu Phe Leu Arg Cys His Gly Trp 100 105 110

Arg Asn Trp Asp Val Tyr Lys Val Ile Tyr Tyr Lys Asp Gly Glu Ala 115 120 125

Leu Lys Tyr Trp Tyr Glu Asn His Asn Ile Ser Ile Thr Asn Ala Thr 130 135 140

Val Glu Asp Ser Gly Thr Tyr Tyr Cys Thr Gly Lys Val Trp Gln Leu 145 150 155 160

Asp Tyr Glu Ser Glu Pro Leu Asn Ile Thr Val Ile Lys Ala Pro Arg 165 170 175

Glu Lys Tyr Trp Leu Gln Phe 180

<210> 6

<211> 275

<212> PRT

<213> Homo sapiens

<400> 6

Met Asp Thr Thr Gln Ser Leu Lys Gln Leu Glu Glu Arg Ala Ala Arg 1 5 10 15

Asn Val Ser Gln Val Ser Lys Asn Leu Glu Ser His His Gly Asp Gln 20 25 30

Met Thr Gln Lys Ser Gln Ser Thr Gln Ile Ser Gln Glu Leu Glu Glu 35 40 45

Leu Arg Ala Glu Gln Gln Arg Leu Lys Ser Gln Asp Leu Glu Leu Ser 50 55 60

Trp Asn Leu Asn Gly Leu Gln Ala Asp Leu Ser Ser Phe Lys Ser Gln 65 70 75 80

Glu Leu Asn Glu Arg Asn Glu Ala Ser Asp Leu Leu Glu Arg Leu Arg 85 90 95

Glu Glu Val Thr Lys Leu Arg Met Glu Leu Gln Val Ser Ser Gly Phe 100 105 110

Val Cys Asn Thr Cys Pro Glu Lys Trp Ile Asn Phe Gln Arg Lys Cys 115 120 125

Tyr Tyr Phe Gly Lys Gly Thr Lys Gln Trp Val His Ala Arg Tyr Ala 130 135 140

Cys Asp Asp Met Glu Gly Gln Leu Val Ser Ile His Ser Pro Glu Glu 145 150 155 160 Gln Asp Phe Leu Thr Lys His Ala Ser His Thr Gly Ser Trp Ile Gly 170 165 Leu Arg Asn Leu Asp Leu Lys Gly Glu Phe Ile Trp Val Asp Gly Ser 185 180 His Val Asp Tyr Ser Asn Trp Ala Pro Gly Glu Pro Thr Ser Arg Ser 200 195 Gln Gly Glu Asp Cys Val Met Met Arg Gly Ser Gly Arg Trp Asn Asp 215 Ala Phe Cys Asp Arg Lys Leu Gly Ala Trp Val Cys Asp Arg Leu Ala 230 225 Thr Cys Thr Pro Pro Ala Ser Glu Gly Ser Ala Glu Ser Met Gly Pro 245 250 Asp Ser Arg Pro Asp Pro Asp Gly Arg Leu Pro Thr Pro Ser Ala Pro 265 Leu His Ser 275 <210> 7 <211> 820 <212> DNA <213> Homo sapiens <400> 7 catatggcag tgatctcttt gcagcctcca tgggtcagcg tgttccaaga ggaaaccgta 60 accttgcact gtgaggtgct ccatctgcct gggagcagct ctacacagtg gtttctcaat 120 ggcacagcca ctcagacctc gacccccagc tacagaatca cctctgccag tgtcaatgac 180 agtggtgaat acaggtgcca gagaggtctc tcagggcgaa gtgaccccat acagctggaa 240 atccacagag gctggctact actgcaggtc tccagcagag tcttcacgga aggagaacct 300 ctggccttga ggtgtcatgc gtggaaggat aagctggtgt acaatgtgct ttactatcga 360 aatggcaaag cctttaagtt tttccactgg aattctaacc tcaccattct gaaaaccaac 420 ataagtcaca atggcaccta ccattgctca ggcatgggaa agcatcgcta cacatcagca 480 ggaatatctg tcactgtgaa agagctattt ccagctccag tgctgaatgc atctgtgaca 540 tccccactcc tggaggggaa tctggtcacc ctgagctgtg aaacaaagtt gctcttgcag 600 aggectggtt tgcagettta etteteette tacatgggea geaagaeeet gegaggeagg 660 aacacatcct ctgaatacca aatactaact gctagaagag aagactctgg gttatactgg 720 tgcgaggctg ccacagagga tggaaatgtc cttaagcgca gccctgagtt ggagcttcaa 780 820 gtgcttggcc tccagttacc aactcctgtc tagtctcgag <210> 8 <211> 533 <212> DNA <213> Homo sapiens <400> 8

catatggcag ctcccccaaa ggctgtgctg aaacttgagc ccccgtggat caacgtgctc 60

```
caggaggact ctgtgactct gacatgccag ggggctcgca gccctgagag cgactccatt 120
cagtggttcc acaatgggaa tctcattccc acccacacgc agcccagcta caggttcaag 180
gccaacaaca atgacagcgg ggagtacacg tgccagactg gccagaccag cctcagcgac 240
cctgtgcatc tgactgtgct ttccgaatgg ctggtgctcc agacccctca cctggagttc 300
caggaggag aaaccatcat gctgaggtgc cacagctgga aggacaagcc tctggtcaag 360
gtcacattct tccagaatgg aaaatcccag aaattctccc gtttggatcc caccttctcc 420
atcccacaag caaaccacag tcacagtggt gattaccact gcacaggaaa cataggctac 480
acqctqttct catccaagcc tgtgaccatc actgtccaag tgccctgaag ctt
<210> 9
<211> 569
<212> DNA
<213> Homo sapiens
<400> 9
ccatggggac acctgcagct cccccaaagg ctgtgctgaa actcgagccc cagtggatca 60
acgtgctcca ggaggactct gtgactctga catgccgggg gactcacagc cctgagagcg 120
actocattca gtggttccac aatgggaatc tcattcccac ccacacgcag cccagctaca 180
ggttcaaggc caacaacaat gacagcgggg agtacacgtg ccagactggc cagaccagcc 240
tcagcgaccc tgtgcatctg actgtgcttt ctgagtggct ggtgctccag acccctcacc 300
tggagttcca ggagggagaa accatcgtgc tgaggtgcca cagctggaag gacaagcctc 360
tggtcaaggt cacattette cagaatggaa aatecaagaa atttteeegt teggateeea 420
acttctccat cccacaagca aaccacagtc acagtggtga ttaccactgc acaggaaaca 480
taggctacac gctgtactca tccaagcctg tgaccatcac tgtccaagct cccagctctt 540
                                                                   569
caccgatggg gatcatttag gctgtcgac
<210> 10
<211> 538
<212> DNA
<213> Homo sapiens
<400> 10
catatgcgga ctgaagatct cccaaaggct gtggtgttcc tggagcctca atggtacagc 60
gtgcttgaga aggacagtgt gactctgaag tgccagggag cctactcccc tgaggacaat 120
tccacacagt ggtttcacaa tgagagcctc atctcaagcc aggcctcgag ctacttcatt 180
gacgctgcca cagtcaacga cagtggagag tacaggtgcc agacaaacct ctccaccctc 240
agtgacccgg tgcagctaga agtccatatc ggctggctgt tgctccaggc ccctcggtgg 300
gtgttcaagg aggaagaccc tattcacctg aggtgtcaca gctggaagaa cactgctctg 360
cataaqqtca catatttaca gaatqqcaaa gacaqqaaqt attttcatca taattctqac 420
ttccacattc caaaagccac actcaaagat agcggctcct acttctgcag ggggcttgtt 480
gggagtaaaa atgtgtcttc agagactgtg aacatcacca tcactcaagg ttaagctt
                                                                   538
<210> 11
<211> 560
<212> DNA
<213> Homo sapiens
<400> 11
catatggcag tccctcagaa acctaaggtc tccttgaacc ctccatggaa tagaatattt 60
aaaggagaga atgtgactct tacatgtaat gggaacaatt tctttgaagt cagttccacc 120
aaatggttcc acaatggcag cctttcagaa gagacaaatt caagtttgaa tattgtgaat 180
gccaaatttg aagacagtgg agaatacaaa tgtcagcacc aacaagttaa tgagagtgaa 240
cctgtgtacc tggaagtctt cagtgactgg ctgctccttc aggcctctgc tgaggtggtg 300
atggagggcc agcccctctt cctcaggtgc catggttgga ggaactggga tgtgtacaag 360
```

```
qtgatctatt ataaggatgg tgaagctctc aagtactggt atgagaacca caacatctcc 420
attacaaatg ccacagttga agacagtgga acctactact gtacgggcaa agtgtggcag 480
ctggactatg agtctgagcc cctcaacatt actgtaataa aagctccgcg tgagaagtac 540
                                                                  560
tqqctacaat tttaggatcc
<210> 12
<211> 532
<212> DNA
<213> Homo sapiens
<400> 12
catatqqaqt tqcaqqtqtc caqcqqcttt qtgtqcaaca cgtqccctga aaagtggatc 60
aatttccaac ggaagtgcta ctacttcggc aagggcacca agcagtgggt ccacgcccgg 120
tatgcctgtg acgacatgga agggcagctg gtcagcatcc acagcccgga ggagcaggac 180
ttcctqacca agcatgccag ccacaccggc tcctggattg gccttcggaa cttggacctg 240
aagggggagt ttatctgggt ggatgggagc cacgtggact acagcaactg ggctccaggg 300
qaqcccacca qccqqaqcca qqqcqaqgac tqcqtgatga tgcggggctc cggtcgctgg 360
aacgacgcct tctgcgaccg taagctgggc gcctgggtgt gcgaccggct ggccacatgc 420
acgccgccag ccagcgaagg ttccgcggag tccatgggac ctgattcaag accagaccct 480
gacggccgcc tgcccacccc ctctgcccct ctccactctt gagcatggat cc
                                                                   532
<210> 13
<211> 1419
<212> DNA
<213> Homo sapiens
<400> 13
ggctgtgact gctgtgctct gggcgccact cgctccaggg agtgatggga atcctgtcat 60
ttttacctgt ccttgccact gagagtgact gggctgactg caagtccccc cagccttggg 120
gtcatatgct tctgtggaca gctgtgctat tcctggctcc tgttgctggg acacctgcag 180
ctccccaaa ggctgtgctg aaactcgagc cccagtggat caacgtgctc caggaggact 240
ctgtgactct gacatgccgg gggactcaca gccctgagag cgactccatt cagtggttcc 300
acaatgggaa totoattooc accoacacgo agoccagota caggttoaag gocaacaaca 360
atgacagegg ggagtacaeg tgccagactg gccagaceag ceteagegae cetgtgcate 420
tgacagtgct ttctgagtgg ctggtgctcc agacccctca cctggagttc caggagggag 480
aaaccatcgt gctgaggtgc cacagctgga aggacaagcc tctggtcaag gtcacattct 540
tccagaatgg aaaatccaag aaattttccc gttcggatcc caacttctcc atcccacaag 600
caaaccacag tcacagtggt gattaccatt gcacaggaaa cataggctac acgctgtact 660
catccaagcc tgtgaccatc actgtccaag ctcccagctc ttcaccgatg gggatcattg 720
tggctgtggt cactgggatt gctgtagctg ccattgttgc tgctgtagtg gccttgatct 780
actgcaggaa aaagcggatt tcagccaatc ccactaatcc tgatgaggct gacaaagttg 840
gggctgagaa cacaatcacc tattcacttc tcatgcaccc ggatgctctg gaagagcctg 900
atgaccagaa ccgtatttag tctccattgt cttgcattgg gatttgagaa gaaatcagag 960
agggaagatc tggtatttcc tggcctaaat tccccttggg gaggacaggg agatgctgca 1020
gttccaaaag agaaggtttc ttccagagtc atctacctga gtcctgaagc tccctgtcct 1080
gaaagccaca gacaatatgg tcccaaatgc ccgactgcac cttctgtgct tcagctcttc 1140
ttgacatcaa ggctcttccg ttccacatcc acacagccaa tccaattaat caaaccactg 1200
ttattaacag ataatagcaa cttgggaaat gcttatgtta caggttacgt gagaacaatc 1260
atgtaaatct atatgatttc agaaatgtta aaatagacta acctctacca gcacattaaa 1320
agtgattgtt tctgggtgat aaaattattg atgattttta ttttctttat ttttctataa 1380
                                                                   1419
agatcatata ttacttttat aataaaacat tataaaaac
```

<400> 14 agatctcagc acagtaagca ccaggagtcc atgaagaaga tggctcctgc catggaatcc 60 cctactctac tgtgtgtagc cttactgttc ttcgctccag atggcgtgtt agcagtccct 120 cagaaaccta aggtctcctt gaaccctcca tggaatagaa tatttaaagg agagaatgtg 180 actettacat qtaatqqqaa caatttettt qaaqteagtt ecaecaaatg gttecaeaat 240 ggcagccttt cagaagagac aaattcaagt ttgaatattg tgaatgccaa atttgaagac 300 agtggagaat acaaatgtca gcaccaacaa gttaatgaga gtgaacctgt gtacctggaa 360 qtcttcaqtq actgqctqct ccttcaggcc tctqctgagg tggtgatgga gggccagccc 420 ctcttcctca ggtgccatgg ttggaggaac tgggatgtgt acaaggtgat ctattataag 480 gatggtgaag ctctcaagta ctggtatgag aaccacaaca tctccattac aaatgccaca 540 gttgaagaca gtggaaccta ctactgtacg ggcaaagtgt ggcagctgga ctatgagtct 600 gagcccctca acattactgt aataaaagct ccgcgtgaga agtactggct acaattttt 660 atcccattgt tggtggtgat tctgtttgct gtggacacag gattatttat ctcaactcag 720 cagcaggtca catttctctt gaagattaag agaaccagga aaggcttcag acttctgaac 780 ccacatccta agccaaaccc caaaaacaac tgatataatt aactcaagaa atatttgcaa 840 cattagtttt tttccagcat cagcaattgc tactcaattg tcaaacacag cttgcaatat 900 acatagaaac gtctgtgctc aaggatttat agaaatgctt cattaaactg agtgaaactg 960 attaagtggc atgtaatagt aagtgctcaa ttaacattgg ttgaataaat gagagaatga 1020 1068 atagattcat ttattagcat ttgtaaaaga gatgttcaat ttagatct <210> 15 <211> 1321 <212> DNA <213> Homo sapiens <400> 15 gacagatttc actgctccca ccagcttgga gacaacatgt ggttcttgac aactctgctc 60 ctttgggttc cagttgatgg gcaagtggac accacaaagg cagtgatctc tttgcagcct 120 ccatgggtca gcgtgttcca agaggaaacc gtaaccttgc actgtgaggt gctccatctg 180 cctgggagca gctctacaca gtggtttctc aatggcacag ccactcagac ctcgaccccc 240 agctacagaa tcacctctgc cagtgtcaat gacagtggtg aatacaggtg ccagagaggt 300 ctctcagggc gaagtgaccc catacagctg gaaatccaca gaggctggct actactgcag 360 gtctccagca gagtcttcac ggaaggagaa cctctggcct tgaggtgtca tgcgtggaag 420 gataagctgg tgtacaatgt gctttactat cgaaatggca aagcctttaa gtttttccac 480 tggaattcta acctcaccat tctgaaaacc aacataagtc acaatggcac ctaccattgc 540 tcaggcatgg gaaagcatcg ctacacatca gcaggaatat ctgtcactgt gaaagagcta 600 tttccagctc cagtgctgaa tgcatctgtg acatccccac tcctggaggg gaatctggtc 660 accetgaget gtgaaacaaa gttgetettg cagaggeetg gtttgeaget ttacttetee 720 ttctacatgg gcagcaagac cctgcgaggc aggaacacat cctctgaata ccaaatacta 780 actgctagaa gagaagactc tgggttatac tggtgcgagg ctgccacaga ggatggaaat 840 gtccttaagc gcagccctga gttggagctt caagtgcttg gcctccagtt accaactcct 900 gtctggtttc atgtcctttt ctatctggca gtgggaataa tgtttttagt gaacactgtt 960 ctctgggtga caatacgtaa agaactgaaa agaaagaaaa agtgggattt agaaatctct 1020 ttggattctg gtcatgagaa gaaggtaact tccagccttc aagaagacag acatttagaa 1080 gaagagctga aatgtcagga acaaaaagaa gaacagctgc aggaaggggt gcaccggaag 1140 gagececagg gggecacgta geageggete agtgggtgge categatetg gacegteece 1200 tgcccacttg ctccccgtga gcactgcgta caaacatcca aaagttcaac aacaccagaa 1260

ctgtgtgtct catggtatgt aactcttaaa gcaaataaat gaactgactt caaaaaaaaa 1320

## <400> 16

cccaaatqtc tcagaatqta tgtcccagaa acctgtggct gcttcaacca ttgacagttt 60 tgctgctgct ggcttctgca gacagtcaag ctgcagctcc cccaaaggct gtgctgaaac 120 ttgagecece gtggateaac gtgeteeagg aggaetetgt gaetetgaea tgeeaggggg 180 ctcqcaqccc tqaqaqcqac tccattcaqt qqttccacaa tqqqaatctc attcccaccc 240 acacqcagcc cagctacagg ttcaaggcca acaacaatga cagcggggag tacacgtgcc 300 agactggcca gaccagcctc agcgaccctg tgcatctgac tgtgctttcc gaatggctgg 360 tgctccagac ccctcacctg gagttccagg agggagaaac catcatgctg aggtgccaca 420 gctggaagga caagcctctg gtcaaggtca cattcttcca gaatggaaaa tcccagaaat 480 tetecegttt ggateceaee ttetecatee cacaageaaa eeaeagteae agtggtgatt 540 accactgcac aggaaacata ggctacacgc tgttctcatc caagcctgtg accatcactg 600 tecaagtgee cageatggge agetetteae caatggggat cattgtgget gtggteattg 660 cgactgctgt agcagccatt gttgctgctg tagtggcctt gatctactgc aggaaaaagc 720 ggatttcagc caattccact gatcctgtga aggctgccca atttgagcca cctggacgtc 780 aaatgattgc catcagaaag agacaacttg aagaaaccaa caatgactat gaaacagctg 840 acggcggcta catgactctg aaccccaggg cacctactga cgatgataaa aacatctacc 900 tgactcttcc tcccaacgac catgtcaaca gtaataacta aagagtaacg ttatgccatg 960 tggtcatact ctcagcttgc tgatggatga caaaaagagg ggaattgtta aaggaaaatt 1020 taaatqqaqa ctqqaaaaat cctqagcaaa caaaaccacc tggcccttag aaatagcttt 1080 aactttqctt aaactacaaa cacaaqcaaa acttcacqqq qtcatactac atacaagcat 1140 aagcaaaact taacttggat catttctggt aaatgcttat gttagaaata agacaacccc 1200 agccaatcac aagcagccta ctaacatata attaggtgac tagggacttt ctaagaagat 1260 acctacccc aaaaaacaat tatgtaattg aaaaccaacc gattgccttt attttgcttc 1320 cacattttcc caataaatac ttgcctgtga cattttgcca ctggaacact aaacttcatg 1380 tacccagget ggagtgcagt ggtgctatet tggetcactg caaacccgcc teccaggttt 1500 aagcgattct tatgcctcag cctcccagta gctgggatta gaggcatgtg ccatcatacc 1560 cagctaattt ttgtattttt tattttttat ttttagtaga gacagggttt cgcaatgttg 1620 gccaggccga tctcgaactt ctggcctcta gcgatctgcc cgcctcggcc tcccaaagtg 1680 ctgggatgac cgcatcagcc ccaatgtcca gcctctttaa catcttcttt cctatgccct 1740 ctctgtggat ccctactgct ggtttctgcc ttctccatgc tgagaacaaa atcacctatt 1800 cactgcttat gcagtcggaa gctccagaag aacaaagagc ccaattacca gaaccacatt 1860 aaqtctccat tqttttqcct tqqqatttqa qaaqaqaatt aqaqaqqtqa qgatctggta 1920 tttcctggac taaattccct tggggaagac gaagggatgc tgcagttcca aaagagaagg 1980 actettecag agteatetae etgagtecea aageteeetg teetgaaage cacagacaat 2040 atggtcccaa atgactgact gcaccttctg tgcctcagcc gttcttgaca tcaagaatct 2100 totattocac atocacacaa coaatacaat taatcaaaco actattatta acagatataa 2160 caacatgaga aacgcttatg ttacaggtta catgagagca atcatgtaag tctatatgac 2220 ttcaqaaatq ttaaaataqa ctaacctcta acaacaaatt aaaagtgatt gtttcaaggt 2280 gatgcaatta ttgatgacct attttatttt tctataatga tcatatatta cctttgtaat 2340 aaaacattat aaccaaaac 2359

<210> 17 <211> 887 <212> DNA <213> Homo sapiens

## <400> 17

tctttggtga cttgtccact ccagtgtggc atcatgtggc agctgctcct cccaactgct 60 ctgctacttc tagtttcagc tggcatgcgg actgaagatc tcccaaaggc tgtggtgttc 120 ctggagcctc aatggtacag cgtgcttgag aaggacagtg tgactctgaa gtgccaggga 180 gcctactccc ctgaggacaa ttccacacag tggtttcaca atgagagcct catctcaagc 240

```
caggeetega getacticat tgaegetgee acagteaacg acagtggaga gtacaggtge 300 cagacaaace tetecaceet cagtgaeceg gtgeagetag aagteeatat eggetggetg 360 ttgeteeagg ecceteggtg ggtgtteaag gaggaagace etatteaeet gaggtgteae 420 agetggaaga acaetgetet geataaggte acatatttae agaatggeaa agacaggaag 480 tattteate ataattetga ettecacatt ecaaaageea caeteaaaga tageggetee 540 teetteega ggtggtggt acaecate teateattet etecaecatg gagaetage 660 teetteeget tggtgatggt acteetttt geagtggaea eagaecata teteetegg 720 aagacaaaca tttgaagete aacaaggae tggaaggaee ataaaettaa atggagaaag 780 gaeceteaag acaaatgaee eccateeea gggagtaata agageagtgg eageageate 840 teetgaacatt teetetggatt tgeaaceee teateeteag geetete
```

<210> 18 <211> 1503 <212> DNA

<213> Homo sapiens

## <400> 18

ctcctgctta aacctctgtc tctgacggtc cctgccaatc gctctggtcg accccaacac 60 actaggagga cagacacagg ctccaaactc cactaagtga ccagagctqt gattqtqccc 120 qctqaqtqqa ctqcqttqtc aqqqaqtqaq tqctccatca tcqqqaqaat ccaaqcaqqa 180 ccgccatgga ggaaggtcaa tattcagaga tcgaggagct tcccaggagg cggtgttgca 240 ggcgtgggac tcagatcgtg ctgctggggc tggtgaccgc cqctctgtgg gctgggctgc 300 tgactctgct tctcctgtgg cactgggaca ccacacagag tctaaaacag ctggaagaga 360 gggctgcccg gaacgtctct caagtttcca agaacttgga aagccaccac ggtgaccaga 420 tggcgcagaa atcccagtcc acgcagattt cacaggaact ggaggaactt cgagctgaac 480 agcagagatt gaaatctcag gacttggagc tgtcctggaa cctgaacggg cttcaagcag 540 atctgagcag cttcaagtcc caggaattga acgagaggaa cgaagcttca gatttgctgg 600 aaaqactccq qqaqqaqqtq acaaaqctaa qqatggagtt gcaggtgtcc agcggctttg 660 tqtqcaacac qtqccctqaa aaqtqqatca atttccaacq gaaqtqctac tacttcggca 720 agggcaccaa gcagtgggtc cacgcccggt atgcctgtga cgacatggaa gggcagctgg 780 tcagcatcca cagcccggag gagcaggact tcctgaccaa gcatgccagc cacaccggct 840 cctqqattqq.ccttcggaac ttggacctga agggagagtt tatctgggtg gatgggagcc 900 atqtqqacta caqcaactqq gctccagggg agcccaccag ccggagccag ggcgaggact 960 gcgtgatgat gcggggctcc ggtcgctgga acgacgcctt ctgcgaccgt aagctgggcg 1020 cctgggtgtg cgaccggctg gccacatgca cgccgccagc cagcgaaggt tccgcggagt 1080 ccatgggacc tgattcaaga ccagacctt acggccgcct gcccaccccc tctgcccctc 1140 tocactotty agoatggata cagocaggoo cagagoaaga cootgaagac coccaaccac 1200 qqcctaaaaq cctctttqtq qctqaaaqqt ccctqtqaca ttttctqcca cccaaacqqa 1260 qqcaqctqac acatctcccq ctcctctatg gcccctqcct tcccaggagt acaccccaac 1320 agcaccetet ceagatggga gtgcccccaa cagcaccete tecagatgag agtacaccee 1380 aacagcaccc totocagatg cagocccato tootoagcac cocaggacot gagtatoccc 1440 ageteaggtg gtgagteete etgteeagee tgeateaata aaatggggea gtgatggeet 1500 1503 ccc